

Department Courses for Honours Degree OR Minor Degree Specialization

Honours Degree Specialization 1: Control & Automation

S. No	Course No.	Course Name	Course Type	Semester	Credits	Periods per week			Hours per week	Examination Scheme (Distribution of Marks)			
						L	T	P		CCA	MSE	ES E	Total
1.	EEH-411	Special Electrical Machines	Theory	IV	3	3	0	0	3	8	22	45	75
2.	EEH -511	Electric Vehicle & EMS	Theory	V	3	3	0	0	3	8	22	45	75
i.	EEL -521	Electric Vehicle & EMS Lab	Lab	V	1	0	0	2	2	15	-	10	25
3.	EEH -611	Robotics and Automation	Theory	VI	3	3	0	0	3	8	22	45	75
ii	EEL-621	Robotics and Automation Lab	Lab	VI	1	0	0	2	2	15	-	10	25
4.	EEH -711	IoT & Transducer Technology	Theory	VII	3	3	0	0	3	8	22	45	75
iii.	EEL-721	IoT & Transducer Technology Lab	Lab	VII	1	0	0	2	2	15	-	10	25
5.	EEH-811	Computer Aided Power System Analysis/(SWAYAM/ NPTEL/MOOCs)	Theory	VIII	3	3	0	0	3	8	22	45	75
Total					18	15	0	6	21				

Honours Degree Specialization 2: AI & Cyber Security

S. No	Course No.	Course Name	Course Type	Semester	Credits	Periods per week			Hours per week	Examination Scheme (Distribution of Marks)			
						L	T	P		CCA	MSE	ES E	Total
1.	EEH-412	Introduction to Computer Networks & Cyber Security	Theory	IV	3	3	0	0	3	8	22	45	75
2.	EEH -512	Introduction to AI & Machine Learning	Theory	V	3	3	0	0	3	8	22	45	75
i.	EEL -522	AI & Machine Learning Lab	Lab	V	1	0	0	2	2	15	-	10	25
3.	EEH -612	Deep Learning & ANN	Theory	VI	3	3	0	0	3	8	22	45	75
ii	EEL-622	Deep Learning Lab	Lab	VI	1	0	0	2	2	15	-	10	25
4.	EEH -712	Cryptography & Network Security	Theory	VII	3	3	0	0	3	8	22	45	75
iii.	EEL-722	Network Security Lab	Lab	VII	1	0	0	2	2	15	-	10	25
5.	EEH-81x	EEH-812: Natural Language Processing EEH-813:Deep Learning for Computer Vision/ (SWAYAM/ NPTEL/MOOCs)	Theory	VIII	3	3	0	0	3	8	22	45	75
Total					18	15	0	6	21				

Honors Degree Specialization 3: Energy and Grid Technology

S. No	Course No.	Course Name	Course Type	Semester	Credits	Periods per week			Hours per week	Examination Scheme (Distribution of Marks)			
						L	T	P		CCA	MSE	ES E	Total
1.	EEH-413	Energy Conservation and Management	Theory	IV	3	3	0	0	3	8	22	45	75
2.	EEH -513	Energy Economics and Auditing	Theory	V	3	3	0	0	3	8	22	45	75
i.	EEL -523	Energy Lab I	Lab	V	1	0	0	2	2	15	-	10	25
3.	EEH -613	Green and Sustainable Building Technologies	Theory	VI	3	3	0	0	3	8	22	45	75
ii	EEL-623	Energy Lab II	Lab	VI	1	0	0	2	2	15	-	10	25
4.	EEH -713	Grid Integration of Renewable Energy	Theory	VII	3	3	0	0	3	8	22	45	75
iii.	EEL-723	Grid Technology Lab	Lab	VII	1	0	0	2	2	15	-	10	25
5.	EEH-814	Smart Grid: Basics to Advanced Technologies/ (SWAYAM/ NPTEL/MOOCs)	Theory	VIII	3	3	0	0	3	8	22	45	75
Total					18	15	0	6	21				

Minor Degree Specialization in Electric Vehicle and Automation

S. No	Course No.	Course Name	Course Type	Semester	Credits	Periods per week			Hours per week	Examination Scheme (Distribution of Marks)			
						L	T	P		CCA	MSE	ES E	Total
1.	EED-411	Power Electronics for Electric Vehicle	Theory	IV	3	3	0	0	3	8	22	45	75
2.	EED -511	Electric Vehicle Control System	Theory	V	3	3	0	0	3	8	22	45	75
3.	EED -611	Electric Vehicle Energy System	Theory	VI	3	3	0	0	3	8	22	45	75
i	EEL-622	Electric Vehicle Lab	Lab	VI	1	0	0	2	2				
4.	EED -711	Electric Vehicle drives	Theory	VII	3	3	0	0	3	8	22	45	75
ii	EEL-722	Project	Project	VI	2	0	0	4	4	15	-	10	25
iii.	EEL-724	Electrical Machines drive Lab	Lab	VII	1	0	0	2	2	15	-	10	25
5.	EED-811	AI and ML Application in EV/ Electric Vehicle: Advance Technologies and Economics / (SWAYAM NPTEL/MOOCs)	Theory	VIII	3	3	0	0	3	8	22	45	75
Total					18	15	0	6	21				